AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-4. (canceled)

5. (new) A device for servo-control of a dental handpiece, comprising:

a supply means (1) with supply output terminals (A, B) and supply input terminals (I, J), the supply input terminals supplied with a supply input voltage (Vr);

a work circuit supplied by the supply means and with output terminals (S1, S2) connected to input terminals (E1, E2) of a dental handpiece (5) and with a first inductance (Ls) connected in parallel between the output terminals of the work circuit; and

a control circuit comprising an intensity transformer (T2) with a primary (7) arranged in series with the work circuit and a secondary (11) in series with a capacitor (13) and a resistor (15), the secondary in series with the capacitor and the resistor forming an RLC circuit, terminals of the resistor being connected to the supply input terminals of the supply means so

that a voltage at the terminals of the resistor is the supply input voltage, wherein,

the supply means is adapted to deliver, at the supply output terminals, a supply output voltage (Vs) in phase with the supply input voltage applied at the supply input terminals, and

one of the capacitor and a self-induction coil of the secondary of the intensity transformer are variable to providing one of a variable capacitance and a variable inductance.

6. (new) The device of claim 5, wherein the secondary of the intensity transformer comprises a core (19), the core being mobile within a winding of the secondary to vary an inductance of the secondary.

7. (new) The device of claim 5, wherein the work circuit is connected to the supply output terminals via a voltage transformer (T1).

8. (new) The device of claim 5, wherein the first inductance is positioned such that an inductance of the first inductance and an intrinsic capacitance of the handpiece and an internal resistance of the handpiece form an approximately resonant RLC circuit.

9. (new) A servo-control device for a dental handpiece, comprising:

a supply (1) with supply output terminals (A, B) and supply input terminals (I, J), the supply input terminals supplied with a supply input voltage (Vr);

a work circuit operatively supplied by the supply and with output terminals (S1, S2) connected to input terminals (E1, E2) of a dental handpiece (5) and with a first inductance (Ls) connected in parallel between the output terminals of the work circuit; and

a control circuit comprising an intensity transformer (T2) with a primary (7) arranged in series with the work circuit and a secondary (11) in series with a capacitor (13) and a resistor (15), the secondary in series with the capacitor and the resistor forming a first RLC circuit, terminals of the resistor being connected to the supply input terminals of the supply so that a voltage at the terminals of the resistor is connected as the supply input voltage at the supply input terminals, wherein,

the supply is adapted to deliver, at the supply output terminals, a supply output voltage (Vs) in phase with the supply input voltage applied at the supply input terminals, and

one of the capacitor and a self-induction coil of the secondary of the intensity transformer are variable to providing one of a variable capacitance and a variable inductance.

10. (new) The device of claim 9, wherein the secondary of the intensity transformer comprises a core (19) mobile within a winding of the secondary.

11. (new) The device of claim 9, wherein a voltage transformer (T1) connects the work circuit to the supply output terminals.

12. (new) The device of claim 9, wherein the first inductance is positioned such that an inductance of the first inductance and an intrinsic capacitance of the handpiece and an internal resistance of the handpiece form a second RLC circuit.

13. (new) The device of claim 12, wherein the second RLC circuit is a resonant RLC circuit.

14. (new) The device of claim 10, wherein a voltage transformer (T1) connects the work circuit to the supply output terminals.

15. (new) The device of claim 10, wherein the first inductance is positioned such that an inductance of the first

inductance and an intrinsic capacitance of the handpiece and an internal resistance of the handpiece form a second RLC circuit.

16. (new) The device of claim 15, wherein the second RLC circuit is a resonant RLC circuit.

17. (new) A servo-control device, comprising:

a supply (1) with supply output terminals (A, B) and supply input terminals (I, J), the supply input terminals supplied with a supply input voltage (Vr);

a work circuit operatively supplied by the supply and with output terminals (S1, S2) connected to input terminals (E1, E2) of a load (5) and with a first inductance (Ls) connected in parallel between the output terminals of the work circuit; and

a control circuit comprising an intensity transformer (T2) with a primary (7) arranged in series with the work circuit and a secondary (11) in series with a capacitor (13) and a resistor (15), the secondary in series with the capacitor and the resistor forming a first RLC circuit, terminals of the resistor being connected to the supply input terminals of the supply so that a voltage at the terminals of the resistor is connected as the supply input voltage at the supply input terminals, wherein,

the supply is adapted to deliver, at the supply output terminals, a supply output voltage (Vs) in phase with the supply input voltage applied at the supply input terminals.

18. (new) The device of claim 17, wherein, one of the capacitor and a self-induction coil of the secondary of the intensity transformer are variable to providing one of a variable capacitance and a variable inductance.

19. (new) The device of claim 18, wherein the secondary of the intensity transformer comprises a core (19) mobile within a winding of the secondary.

20. (new) The device of claim 17, wherein a voltage transformer (T1) connects the work circuit to the supply output terminals.

21. (new) The device of claim 17, wherein the first inductance is positioned such that an inductance of the first inductance and an intrinsic capacitance of the load and an internal resistance of the load form a resonant, second RLC circuit.